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## BEFORE THE FEDERAL COMMUNICATIONS COMMISSION

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FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

In the Matter of

Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service

CC Docket No. 92-297

## COMMENTS OF HUGHES SPACE AND COMMUNICATIONS COMPANY AND HUGHES NETWORK SYSTEMS, INC.

In its Notice of Proposed Rulemaking, Order, Tentative Decision, and Order on Reconsideration in CC Docket 92-297 ("Notice"), the Commission proposes to redesignate the 27.5 - 29.5 GHz band from point-to-point microwave common carrier service to a local multipoint distribution service ("IMDS"). This redesignation is intended to facilitate the introduction of IMDS technology such as that proposed by Suite 12 Group. Indeed, the Commission has tentatively concluded that Suite 12 should be awarded a pioneer's preference for this purpose in either the New York or Los Angeles area.

These are the comments of Hughes Space and Communications Company ("HSC"), a unit of Hughes Aircraft Company ("HAC"), and Hughes Network Services, Inc. ("HNS"), a subsidiary of HAC. HSC is the unit of HAC which is responsible for the manufacture and sale of domestic and international communications satellites. HSC is a leading provider of communications satellites in the fixed satellite service ("FSS") bands, both at C band (6/4 GHz) and at Ku

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band (14/11 GHz). HNS is a leading manufacturer and supplier of Ku band VSAT equipment and service.

HSC and HNS anticipate that as additional uses for satellites evolve, the United States will implement and license FSS satellites in the Ka band (30/17 GHz). As the Commission is well aware, the NASA Advanced Communications Technology Satellite ("ACTS"), using the frequencies at issue here, is scheduled to be launched in June or July 1993. See Notice at fn. 2. Paragraph 22 of the Notice explicitly raises the question of whether a separate assignment is specifically required to accommodate Ka band FSS service.

HSC and HNS have no objection to the concept of the creation of a new omnidirectional video service such as the one However, HSC and HNS are seriously proposed in the Notice. concerned that the service as proposed in the Notice could deny effective use by U.S. satellite system operators and users of 80 percent of the existing primary international and domestic FSS allocations in the non-government Ka bands (27.5 - 30 GHz and 17.7 - 20.2 GHz). Both bands would be affected because an FSS downlink band cannot be used without its companion uplink band. ubiquitous nature of the proposed LMDS, if it proves to be commercially viable, could, as recognized by the Commission at paragraph 22 of the Notice, foreclose the possibility of acceptable sharing conditions between satellite and terrestrial services. This would occur in precisely those geographic areas where the demand for FSS applications at Ka band are likely to be heaviest.

Suite 12 Group has argued that the 27.5 - 29.5 GHz band has lain fallow for many years. However, this a precisely what was intended and expected in the short term for the FSS allocations at Ka band. These bands were intentionally allocated to accommodate the future growth of the FSS at such time as the FSS allocations at C and Ku bands become crowded. The present situation in the Ka band FSS allocations simply reflects the fact that the anticipated saturation of C and Ku band is not quite at hand in the United States. But European and Japanese satellite operators already are launching Ka band FSS systems. NASA has already invested almost a billion dollars in developing the ACTS technology for U.S. uses -- technology which is more innovative and spectrum efficient than the analog technology proposed by Suite 12 Group.

In the interest of sound frequency management, the Commission should insist that any proposed use of the frequencies proposed for LMDS use should not in any way foreclose the future use of another coprimary frequency allocation, here the fixed satellite service. At a minimum, before allocating frequencies and adopting service rules, LMDS proponents must be required to make a detailed technical showing that adequate sharing and coordination criteria can be adopted to permit the full use of Ka band technology by the FSS across the entire 27.5 - 29.5 GHz band.

Absent a technical showing of sharing feasibility by LMDS proponents in this proceeding, HSC and HNS recommend that the Commission either not allocate frequencies for the LMDS or, at a minimum, retain an adequate separate assignment for the domestic Ka band fixed satellite service.

Respectfully submitted,

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